

COAL COMBUSTION PRODUCTS
By Thomas D. Kelly and Rustu S. Kalyoncu
[All values in metric tons (t)]

Year	Flyash production	Flyash used	Bottom ash production	Bottom ash used	Boiler slag production	Boiler slag used	FGD material production	FGD material used	Total CCP production	Total CCP apparent consumption
1966	15,500,000	1,270,000	7,350,000	1,540,000					22,900,000	2,810,000
1967	16,700,000	1,270,000	8,260,000	2,090,000					24,900,000	3,360,000
1968	18,000,000	1,720,000	6,620,000	1,630,000	2,360,000	1,360,000			26,900,000	4,720,000
1969	19,100,000	1,720,000	6,890,000	1,810,000	2,630,000	907,000			28,700,000	4,450,000
1970	24,000,000	2,000,000	8,980,000	1,630,000	2,540,000	998,000			35,600,000	4,630,000
1971	25,200,000	2,990,000	9,160,000	1,450,000	4,540,000	3,360,000			38,900,000	7,800,000
1972	28,800,000	3,270,000	9,710,000	2,360,000	3,450,000	1,180,000			42,000,000	6,800,000
1973	31,400,000	3,540,000	9,710,000	2,090,000	3,630,000	1,630,000			44,700,000	7,260,000
1974	36,700,000	3,080,000	13,000,000	2,630,000	4,350,000	2,180,000			54,000,000	7,890,000
1975	38,400,000	4,080,000	11,900,000	3,180,000	4,170,000	1,630,000			54,400,000	8,890,000
1976	38,800,000	5,170,000	13,000,000	4,080,000	4,350,000	2,000,000			56,200,000	11,200,000
1977	44,000,000	5,720,000	12,800,000	4,170,000	4,720,000	2,810,000			61,500,000	12,700,000
1978	43,800,000	7,620,000	13,300,000	4,540,000	4,640,000	2,720,000			61,800,000	14,900,000
1979	52,200,000	9,070,000	11,300,000	2,990,000	4,720,000	2,180,000			68,200,000	14,200,000
1980	43,800,000	5,820,000	13,100,000	3,860,000	3,300,000	1,590,000			60,200,000	11,300,000
1981	45,600,000	8,540,000	11,700,000	3,690,000	4,700,000	2,660,000			62,000,000	14,900,000
1982	43,500,000	7,210,000	11,900,000	3,290,000	3,960,000	1,790,000			59,300,000	12,300,000
1983	42,800,000	6,820,000	11,500,000	2,500,000	3,570,000	2,300,000			57,900,000	11,600,000
1984	46,600,000	9,460,000	12,400,000	2,690,000	3,820,000	2,400,000			62,700,000	14,600,000
1985	43,800,000	10,300,000	11,900,000	3,720,000	3,310,000	2,160,000			59,100,000	16,200,000
1986	44,700,000	7,960,000	12,200,000	3,250,000	3,750,000	1,950,000			60,600,000	13,200,000
1987	45,500,000	10,000,000	13,400,000	4,330,000	3,740,000	2,210,000	12,900,000	925,000	75,400,000	17,500,000
1988	46,200,000	10,300,000	12,900,000	4,930,000	4,560,000	2,570,000	12,300,000	844,000	76,000,000	18,600,000
1989	48,400,000	9,210,000	12,900,000	4,400,000	3,870,000	2,290,000	14,200,000	103,000	79,300,000	16,000,000
1990	44,400,000	11,300,000	12,400,000	4,860,000	4,740,000	2,950,000	17,200,000	196,000	78,700,000	19,300,000
1991	46,500,000	12,000,000	12,100,000	4,540,000	5,490,000	3,270,000	16,400,000	318,000	80,500,000	20,100,000
1992	43,600,000	11,900,000	12,600,000	3,510,000	3,730,000	2,810,000	14,400,000	260,000	74,400,000	18,500,000
1993	43,400,000	9,540,000	12,900,000	3,840,000	5,660,000	3,110,000	18,500,000	1,050,000	80,400,000	17,500,000
1994	49,800,000	11,700,000	13,500,000	4,610,000	3,440,000	2,830,000	14,100,000	850,000	80,800,000	20,000,000
1995	49,200,000	12,300,000	13,800,000	4,600,000	2,550,000	2,440,000	18,300,000	1,340,000	83,700,000	20,700,000
1996	53,900,000	14,700,000	14,600,000	4,430,000	2,360,000	2,170,000	21,700,000	1,500,000	92,400,000	22,800,000
1997	54,700,000	17,500,000	15,400,000	4,600,000	2,490,000	2,340,000	22,800,000	1,980,000	95,400,000	26,500,000
1998	57,200,000	19,200,000	15,200,000	4,760,000	2,710,000	2,170,000	22,700,000	2,260,000	97,800,000	24,800,000

Coal Combustion Products Worksheet Notes

Data Sources

For the years 1994–98, data were recorded from the Minerals Yearbook (MYB). For the years 1966–93, data were recorded from the American Coal and Ash Association's Coal Combustion Byproduct (CCB) Production and Use: 1966–1994 (CCBPU).

Production

Data were recorded from the MYB and CCBPU for fly ash, bottom ash, boiler slag, and flue gas desulfurization (FGD) material. Data were not available for the years 1966 and 1967 for boiler slag, and the years 1966–86 for FGD material.

Used

Boiler slag, bottom ash, fly ash, and FGD material are reported in the MYB and CCBPU. Data were not available for the years 1966 and 1967 for boiler slag, and the years 1966–86 for FGD material.

Total CCP Production

Total CCP production represents the sum of boiler slag, bottom ash, fly ash, and FGD material produced. The boiler slag and FGD material are not included for the years in which the data were not available.

Total Apparent Consumption

Total apparent consumption represents the sum of boiler slag, bottom ash, fly ash, and FGD material used.

References

American Coal Ash Association, Inc., 1996, Coal combustion byproduct (CCB) production and use: 1966–1994, 59 p.
U.S. Geological Survey, 1997–2000, Minerals Yearbook, v. 1, 1995–98.

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